

## ABSTRACT

The present invention is directed methods for identifying compounds that have a tissue protective activity using a heteromultimer receptor complex that mediates the tissue protective activities. The complex consists of at least one EPO-R in complex with at least one  $\beta_c$  Receptor. These compounds used in the assays to identify tissue protective compounds include, but are not limited to, small molecules and biologics. The compounds identified using these assays can be used to treat various conditions of the central and peripheral nervous systems as well as those of other erythropoietin-responsive or excitable cells, tissues, and organs.